

**STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
OFFICE OF CONSERVATION AND COASTAL LANDS
Honolulu, Hawaii**

180-Day Exp. Date: February 18, 2006

January 27, 2006

**Board of Land and
Natural Resources
State of Hawaii
Honolulu, Hawaii**

REGARDING: Conservation District Use Application (CDUA) HA-3247
for the Replacement of Pi'ihonua Reservoir No. 2

APPLICANT: County of Hawaii
Department of Water Supply

LANDOWNER: State of Hawaii

LOCATION: Pi'ihonua, South Hilo, Island of Hawaii

TMKs: (3) 2-3-030:005

AREA OF PARCEL 6.405 acres

USE: 6.405 acres

SUBZONE: General

DESCRIPTION OF AREA AND CURRENT USE

The proposed project site is located along Waianuenue Avenue, Pi'ihonua ahupua'a, South Hilo on the island of Hawaii, identified as TMK (3) 2-3-030:005. The project area is located approximately 450 feet above sea level and is a combination of open land and disturbed forest. An enclosed water tank/reservoir owned and operated by the Hawaii County Department of Water Supply (DWS) occupies the northwestern portion of the property fronting Waianuenue Ave. Several single-family residential structures border the area along the north. The remainder of the project area boundary is currently undeveloped. The 6.405 parcel owned by the State of Hawaii lies within the General subzone of the Conservation District (**Exhibit 1, 2 &3**).

(Exhibit 4). Inspection of the structures revealed that lead-containing paint was used to paint the existing reservoir, and asbestos is present in pump gaskets and on the Transite material roof.

The site currently has electrical service. However the property is not serviced by telephone or sewerage. Access to the existing facilities is provided by a one-lane, gated, unmanned driveway from Waianuenue Avenue.

A walk-through biological survey of the project site was conducted in August 2004. According to the applicant, original floral communities have been destroyed or heavily degraded by cattle grazing, agriculture, and clearing for farms and residences. The vegetation of the project area ranges from thick to fairly open dominated by dense disturbed forest with a variety of exotic trees. According to the information presented, the existing vegetation pattern indicates that the study property has undergone substantial alteration in the past including but not limited to mechanized clearing and earth moving. No listed, candidate or proposed endangered plant species were found, nor are expected to be found on the site.

Residents of the area have reported that Hawaiian hawks and Hawaiian hoary bats are often seen in the area. Both are listed endangered species, but both are commonly observed on a daily basis in many parts of East Hawaii. Although the native trees favored by Hawaiian Hawks for nesting are not present in the alien vegetation on the project site, there is some possibility that clearing could affect a nesting pair of hawks on this or nearby land.

According to the applicant, relevant agencies (OHA and Hilo Hawaiian Civic Club) were contacted to obtain information about any potential traditional cultural properties and associated practices that may be present. No natural resources of a potential traditional cultural nature (i.e. landform, vegetation, etc.) appear to be present on or near the project site and there is no evidence of any former or ongoing traditional gathering uses or other cultural practices. No public trails are present on the parcel.

Two archaeological sites, State Inventory of Historic Places (SIHP) sites 24267 and Site 24268, both remnant stacked stone walls, most likely related to 20th century sugarcane cultivation, were recorded on the subject parcel.

PROPOSED USE

The proposed use is to replace a 0.8 million-gallon (Mg) capacity reservoir with a 2.0 Mg reservoir on the same general site. The total area to be modified, including landscaping, removal of the old reservoir, construction of the new reservoir, appurtenant structures, and access is within the entire 6.405-acre parcel. The improvements are necessary because the existing reservoir has reached the end of its service life, is undersized and has required expensive maintenance. The new reservoir will be over twice as large as the existing tank, and thus better able to meet existing and future demands in its water service area.

In addition to the reservoir itself, new or relocated improvements will include the following: a new booster pump station with two booster pumps, a new control building to house the motor control center and other electrical equipment and control instrumentation, an asphalt concrete pavement driveway, perimeter fencing and rockwalls, site landscaping, and associated water mains to connect the reservoir to the existing water distribution system (**Exhibit 5&6**).

The existing facility, including the reservoir, booster pump station, and ancillary equipment, will be demolished once the new facility is constructed, tested, and in operating order. The land under the existing facility will then be landscaped to match the landscaping for the new facility.

Removal of existing non-native trees would be required for reservoir siting. This would include an African tulip tree, crape myrtle & mango trees and Alexander palms. Some existing shrubs and groundcover shall also be removed. The landscaping plan retains some crape myrtle as a border and further shields the facility with layers of native and other trees and shrubs (**Exhibit 7**). The landscaping plan will be developed and implemented to ensure the visual compatibility of the facility with its residential surroundings. No important view plains or scenic sites recognized in the Hawaii County General Plan would be affected.

A portion of the site has been previously graded for the existing reservoir and appurtenant structures and to provide drainage. The project will involve additional grading. Preliminary calculations indicate that there will be 1,800 cubic yards of excavation and a need for 4,000 cubic yards of material, which will require 2,200 cubic yards of imported borrow material. All grading will be in conformance with Hawaii County and the State Department of Health.

The DWS will require the contractor to develop a traffic control plan during the design phase to minimize congestion and maintain access to adjacent properties during construction. Archeological and cultural surveys have determined that no effects to significant historic sites or cultural resources would occur. Although the reservoir has historic architectural value, the applicant has recommended photographic documentation to provide a record of the structure. This recommendation has been submitted to SHPD in July 2005. DWS has made good faith efforts to comply with SHPD's requests. No comments from SHPD have yet been received by the applicant.

Endangered Species Mitigation

To reduce the potential for interactions between clearing and grubbing activity and nesting Hawaiian Hawks, DWS will ensure that clearing does not take place during the breeding season from March through July. If this is unavoidable, DWS will contract with a qualified ornithologist to conduct audio playback nesting activity surveys using currently approved protocols within the areas slated for clearing prior to the commencement of such activities. If nesting activity is detected, consultation with the

U.S. Fish & Wildlife Service and the Hawaii Division of Forestry and Wildlife will be undertaken to ensure that there are no impacts to Hawaiian hawks.

The principal potential impact that the project poses to the endangered Hawaiian hoary bats is during the clearing and grubbing of the site. Female bats while caring for their young are extremely vulnerable to disturbance. To reduce the potential for interactions between clearing and grubbing activity and Hawaiian hoary bats, DWS will ensure that clearing and grubbing are not undertaken during the period that bats are caring for young, which occurs between the months of June through August.

Historic Sites

The following treatment regarding the two archaeological sites, both remnant stacked stone walls are recommended. Site 24267 is not considered significant in the context of the administrative rules governing the treatment of historic sites, because it retains no integrity of design, setting, feeling, or association. This site and its immediate surroundings have been wholly impacted by agricultural and infrastructure development dating back to the late nineteenth century and continuing into modern times. SIHP Site 24268 is considered significant for information it has yielded regarding early twentieth century sugarcane associated infrastructure (flume). This site has been recorded in detail and there is no excavation potential, no further work is recommended.

By letter dated April 27, 2005 the State Historic Preservation Division (SHPD) accepted these findings and requested that the reservoir should be described as an historic property with an assessment of its significance and recommended treatment. DWS contracted Mason Architects, an architectural history firm that mitigation for the adverse impact to the historic place consist of photographic documentation of the reservoir exterior and interior prior to demolition. This should be accomplished by large-format photography in accordance with standards established by the National Park Service for Historic American Buildings Survey (HABS) standards.

Hazardous Substances Mitigation

As asbestos-containing material and lead-containing paint are present, project demolition and disposal will require compliance with the Federal Environmental Protection Agency and the State Department of Health.

Alternatives To The Proposed Action

A No-Build alternative was considered for the comparison of impacts. The No-Build alternative was rejected because without the proposed water supply improvement the level and quality of water supply service for the community of Hilo would be diminished.

SUMMARY OF COMMENTS

The application was referred to the following agencies for their review and comment: the **State:** Department of Health, Office of Hawaiian Affairs, Office of Environmental Quality Control, Department of Land and Natural Resources Divisions of: Conservation and Resource Enforcement, Forestry and Wildlife; Hawaii District Land Office; Historic Preservation; and Engineering; and the Hilo Public Library; **County of Hawaii:** Planning Department and the Piihonua Houselots Community Association. .

Comments were received and summarized from the following agencies:

STATE OF HAWAII

DEPARTMENT OF HEALTH

No Comments

OFFICE OF HAWAIIAN AFFAIRS (OHA)

OHA recommends that the proposed mitigation measures for the flora, fauna and ecosystems be implemented in regards to the Hawaiian Hawk and Bat. Current studies are being conducted by the University of Washington and the U.S. Fish & Wildlife to identify their critical habitat areas. Additionally, OHA asks that the landscaping plan for the proposed project include native plant and tree species. This will help to promote a native ecosystem in the area and create an environment more conducive to native animals. What plans have been made for the identified archaeological sites? If the consultant intends to alter the sites as part of the proposed project, please inform us of these intentions. Should iwi or Native Hawaiian cultural or traditional deposits be found during ground disturbance, work will cease, and the appropriate agencies will be contacted pursuant to applicable law.

Applicant's Response

The Department of Water Supply (DWS) intends to fulfill the precautionary measures related to Hawaiian Hawks and Hawaiian hoary bats that were proposed in the Environmental Assessment. The landscaping plan does include native plants.

The archaeological sites on the property are small remnants of the original features and have very little integrity or preservation value. The sites are remnant walls. The State Historic Preservation Division agreed that preservation was not warranted. The sites have been heavily disturbed by previous development of the water supply compound in the earlier part of the century. The area including at least portions of both of these sites will be used for construction of the reservoir.

DWS is committed to the policy that if any iwi or Hawaiian cultural or traditional deposits are found during ground disturbance, work will cease, and appropriate agencies will be contacted pursuant to applicable laws and regulations.

DEPARTMENT OF LAND AND NATURAL RESOURCES

Division of Conservation and Resource Enforcement

No comments.

Division of Forestry and Wildlife

No comments.

Hawaii District Land Office

The new reservoir site will require less than 2 acres. The existing Executive Order No. 2683 is an oddly configured lot consisting of approximately 6.405 acres and is surrounded by more State owned lands. The Department of Water Supply may want to consider a consolidation/resubdivision of the existing EO parcel and the surrounding State owned lands to create a more logical squared off reservoir lot sufficient for the requirements of the new reservoir.

Our concerns would be that the old reservoir is properly demolished and appropriate reports indicating the lack of any remaining hazardous waste concerns. Additionally, we would request that the area being returned to the State has adequate erosion control measures implemented. Should the Department of Water Supply elect to pursue the foregoing recommendation, a request would have to be submitted to Land Division for a cancellation of the existing executive order and the issuance of a new executive order reflecting the new proposed reservoir parcel.

Applicant's Response

The suggestion has merit, and DWS may wish to consider this action at a future date. However, the current property configuration successfully accommodates the design and the CDUA and EA are specific to these boundaries. As such, DWS would prefer to continue the project with the current property and EO boundaries.

Division of Forestry and Wildlife

No comments.

Engineering

We confirm that the project site, according to the Flood Insurance Rate Map (FIRM), is located in Zone X. The National Flood Insurance Program does not have any regulations for development within Zone X.

Applicant's Response

Comments noted.

COUNTY OF HAWAII

Department of Planning

No additional comments.

Community Member

Please preserve the Myrtle Wood trees. The trees are believed to have been planted in the late '30's. The existing Myrtle wood should be professionally pruned and the parasites growing on them removed. The row of trees should be extended down to the makai side of the site.

The noise from the water lines has been intrusive to the quiet neighborhood due to air in the pipes. Please research the supply lines that cross Waianuenue Ave. and run mauka/makai to prevent pumping air into more houses. In addition, the old reservoir roof amplified the noise. Please be very careful about the noise factor. After 250 feet, only total elimination of noise is acceptable.

An access driveway on Waianuenue Ave. entering from the mauka side of the site would be more aesthetic and allow more privacy than the existing unplanned gate. Lava stone columns could be erected at the mauka and makai boundaries and creative landscaping could hide a chain link fence in keeping with the ambiance and historic beauty of Piipihonua.

The old reservoir should be ripped up and filled in. It should not be a historical site. If it must be kept, convert it into a skateboard park or something useful.

Applicant's Response

A professional landscape plan has been developed that will preserve and enhance the beauty of the site and accommodate the demolition, construction and use of the site as a reservoir. A few of the giant crape myrtle trees need to be removed to allow access to the site and to accommodate the locations of utility lines and rock walls. Native ohia trees will be installed as part of the landscaping. Your suggestion regarding lava pillars will be incorporated in the design for the driveway entrance.

The booster pumps, reservoir influent control valves, and control building are located behind the reservoir, therefore most activity will be behind the reservoir and noise generated by these equipment will be shielded by the reservoir. The new proposed pump design is expected to prevent most noise problems caused by air in the lines.

The current driveway location was selected because it provided the most economical and efficient arrangement for the site. Altering the driveway as suggested would require the removal of more giant crape myrtle trees. In addition, there is an existing drainage way from a 4 x 7 box culvert at the Kaahumanu Street intersection. Altering the drainage pattern by installing a new driveway approach in that area would be inconsistent with County codes.

Your opinion regarding the reservoir as a historic site has been noted. DWS is working with the State Historic Preservation Division concerning mitigation for adverse effects of demolishing the reservoir, which SHPD believes has at least some historic value, and the expected mitigation consist of photographic documentation.

ANALYSIS

After reviewing the application, the Department has found by letter dated August 25, 2005, that:

1. The proposed use is an identified land use in the General subzone of the Conservation District, according to § 13-5-22, Hawaii Administrative Rules (HAR), P-6, PUBLIC PURPOSE USES, D-1, "land uses undertaken by the State of Hawaii or the counties to fulfill a mandated governmental function, activity, or service for public benefit and in accordance with public policy and the purpose of the conservation district. Such land uses may include transportation systems, water systems, communications systems, and recreational facilities." Please be advised, however, that this finding does not constitute approval of the proposal;
2. Pursuant to § 13-5-40 of the Hawaii Administrative Rules, a Public Hearing will not be required;
3. In conformance with Chapter 343, Hawaii Revised Statutes (HRS), as amended, and Chapter 1-200, HAR, a finding of no significant impact (FONSI) to the environment was published in the April 8, 2005 Environmental Notice;
4. Pursuant to documentation dated June 10, 2004, the County of Hawaii has determined that the subject area is not within the Special Management Area.

The following discussion evaluates the merits of the proposed land use by applying the criteria established in Section 13-5-30, HAR.

1. *The proposed land use is consistent with the purpose of the Conservation District.*

The objective of the Conservation District is to conserve, protect and preserve the important natural resources of the State through appropriate management and use to promote their long-term sustainability and the public health, safety, and welfare.

The project is considered an identified land use in the subject area of the Conservation District; as such, it is subject to the regulatory process established in Chapter 183C, HRS and detailed further in Chapter 13-5, HAR. This process provides for the application of appropriate management tools to protect the relevant resources, including objective analysis and thoughtful decision-making by the Department and Board of Land and Natural Resources.

Water is a very significant natural resource. The action serves to appropriately manage this essential public resource that will benefit the public health by providing a safe and adequate source of water.

2. *The proposed land use is consistent with the objectives of the subzone of the land on which the use will occur.*

The objective of the General subzone is to designate open space where specific conservation uses may not be defined, but where urban use would be premature. The proposed action involves a properly managed use that ensures sustained use of the natural resource by providing a safe and adequate source of potable water.

3. *The proposed land use complies with provisions and guidelines contained in Chapter 205, HRS, entitled "Coastal Zone Management," where applicable.*

The subject area is not within the Special Management Area (SMA). Staff believes that the project complies with provisions and guidelines contained in Chapter 205, HRS.

4. *The proposed land use will not cause substantial adverse impacts to existing natural resources within the surrounding area, community, or region.*

Staff believes the proposed land use will not cause substantial adverse impacts to existing natural resources within the surrounding area, community or region. The proposed land use does not change the existing use of the area.

5. *The proposed land use, including buildings, structures and facilities, shall be compatible with the locality and surrounding area, appropriate to the physical conditions and capabilities of the specific parcel or parcels.*

The proposed action continues the existing use as a water reservoir site and is compatible with adjacent residential uses that the action serves to support.

6. *The existing physical and environmental aspect of the land, such as natural beauty and open space characteristics, will be preserved or improved upon, which ever is applicable.*

The current reservoir appears to be somewhat dilapidated and unsightly. The reconstructed reservoir, although larger, will include landscaping and the project will preserve and enhance the scenic characteristics of the area.

7. *Subdivision of the land will not be utilized to increase the intensity of land uses in the Conservation District.*

No subdivision of land is proposed for this project.

8. *The proposed land use will not be materially detrimental to the public health, safety and welfare.*

The implementation of the proposed land use will improve the water system infrastructure. Staff believes the proposed action will enhance the quality of water service and will have a beneficial effect for the public health, safety and welfare.

DISCUSSION

The County of Hawaii Department of Water Supply is proposing to replace a 0.8 million-gallon (Mg) capacity reservoir with a 2.0 Mg reservoir on the same general site. The improvements are necessary because the existing reservoir has reached the end of its service life, is undersized and has required expensive maintenance. The new reservoir will be over twice as large as the existing tank, and thus better able to meet existing and future needs. These improvements should reduce the existing noise impact to the adjacent community.

As asbestos-containing material and lead-containing paint are present, project demolition and disposal will require compliance with the Federal Environmental Protection Agency and the State Department of Health.

The existing flora is introduced and non-native species. The final landscaping plan does included ohia lehua, a native species and unidentified shade trees. Existing trees to be removed include African Tulip, Crepe Myrtle, Alexander palms and Mango. Other existing Crepe Myrtle Trees shall be pruned and trimmed. Staff highly recommends that native flora be planted to improve the habitat for native species.

The existing fauna includes two listed endangered species, the Hawaiian Hawk and Bat. Grubbing and clearing of flora has the potential to disturb a nesting pair of hawks. To reduce the potential for inactions between clearing and grubbing activity and nesting Hawaiian Hawks, DWS will ensure that clearing does not take place during the breeding

season from March through July. If this is unavoidable, DWS will contract with a qualified ornithologist to conduct audio playback nesting activity surveys using currently approved protocols within the areas slated for clearing prior to the commencement of such activities. If nesting activity is detected, consultation with the U.S. Fish & Wildlife Service and the Hawaii Division of Forestry and Wildlife will be undertaken to ensure that there are no impacts to Hawaiian hawks.

The principal potential impact that the project poses to the endangered Hawaiian hoary bats is during the clearing and grubbing of the site. Female bats while caring for their young are extremely vulnerable to disturbance. To reduce the potential for interactions between clearing and grubbing activity and Hawaiian hoary bats, DWS will ensure that clearing and grubbing are not undertaken during the period that bats are caring for young, which occurs between the months of June through August.

The State Historic Preservation Division (SHPD) requested that the reservoir should be described as an historic property with an assessment of its significance and recommended treatment. DWS contracted an architectural history firm that recommended photodocumentation in conformance with Historic American Buildings Survey (HABS). DWS intends to implement the recommendations of the historic structures report.

RECOMMENDATION:

Based on the preceding analysis, Staff recommends that the Board of Land and Natural Resources APPROVE this application for the replacement of the Piihonua Reservoir # 2 and associated improvements including landscaping, removal of the old reservoir, construction of the new reservoir, appurtenant structures, and access located at Piihonua, South Hilo, island of Hawaii, TMK: (3) 2-3-030:005 subject to the following conditions:

1. The applicant shall comply with all applicable statutes, ordinances, rules, regulations, and conditions of the Federal, State, and County governments, and applicable parts of the Hawaii Administrative Rules, Chapter 13-5;
2. The applicant, its successors and assigns, shall indemnify and hold the State of Hawaii harmless from and against any loss, liability, claim or demand for property damage, personal injury or death arising out of any act or omission of the applicant, its successors, assigns, officers, employees, contractors and agents under this permit or relating to or connected with the granting of this permit;
3. The applicant shall comply with all applicable Department of Health administrative rules. Particular attention should be paid to Hawaii Administrative Rules (HAR) Section 11-60.1-33, "Fugitive Dust" and to Chapter 11-46, "Community Noise Control" if applicable;
4. Before proceeding with any work authorized by the Board, the applicant shall submit four (4) copies of the construction and grading plans and specifications to the Chairperson or his authorized representative for approval for consistency with

the conditions of the permit and the declarations set forth in the permit application. Three (3) of the copies will be returned to the applicant. Plan approval by the Chairperson does not constitute approval required from other agencies;

5. Any work done or construction to be done on the land shall be initiated within one year of the approval of such use, in accordance with construction plans that have been signed by the Chairperson, and, unless otherwise authorized, shall be completed within three (3) years of the approval. The applicant shall notify the Department in writing when construction activity is initiated and when it is completed;
6. All representations relative to mitigation set forth in the accepted environmental assessment or impact statement for the proposed use are incorporated as conditions of the permit;
7. No grubbing or clearing of the site shall take place between the first day of March through the last day of August;
8. The applicant understands and agrees that this permit does not convey any vested rights or exclusive privilege;
9. In issuing this permit, the Department and Board have relied on the information and data that the applicant has provided in connection with this permit application. If, subsequent to the issuance of this permit, such information and data prove to be false, incomplete or inaccurate, this permit may be modified, suspended or revoked, in whole or in part, and/or the Department may, in addition, institute appropriate legal proceedings;
10. When provided or required, potable water supply and sanitation facilities shall have the approval of the department of health and the county department of water supply;
11. Where any interference, nuisance, or harm may be caused, or hazard established by the use, the applicant shall be required to take the measures to minimize or eliminate the interference, nuisance, harm, or hazard;
12. Cleared areas shall be revegetated within thirty (30) days unless otherwise provided for in a plan on file with and approved with the department;
13. During construction, appropriate mitigation measures shall be implemented to minimize impacts to off site roadways, utilities, and public facilities;
14. Should historic remains such as artifacts, burials or concentration of charcoal be encountered during construction activities, work shall cease immediately in the vicinity of the find, and the find shall be protected from further damage. The

contractor shall immediately contact HPD (692-8015), which will assess the significance of the find and recommend an appropriate mitigation measure, if necessary;

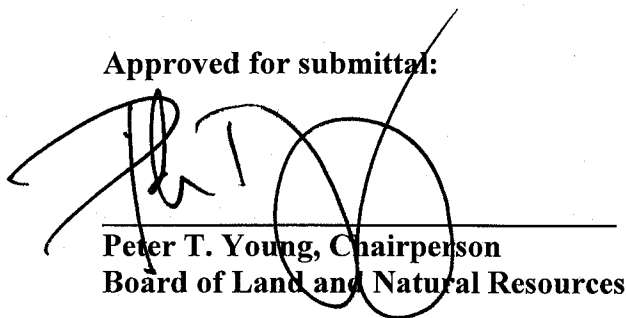
15. As asbestos-containing material and lead-containing paint are present, project demolition and disposal must compliance with the Federal Environmental Protection Agency and the State Department of Health;
16. Other terms and conditions as may be prescribed by the Chairperson; and
17. Failure to comply with any of these conditions shall render this Conservation District Use Permit null and void.

Respectfully submitted,



K. Tiger Mills, Staff Planner
Office of conservation and Coastal Lands

Approved for submittal:



Peter T. Young, Chairperson
Board of Land and Natural Resources

HAWAII

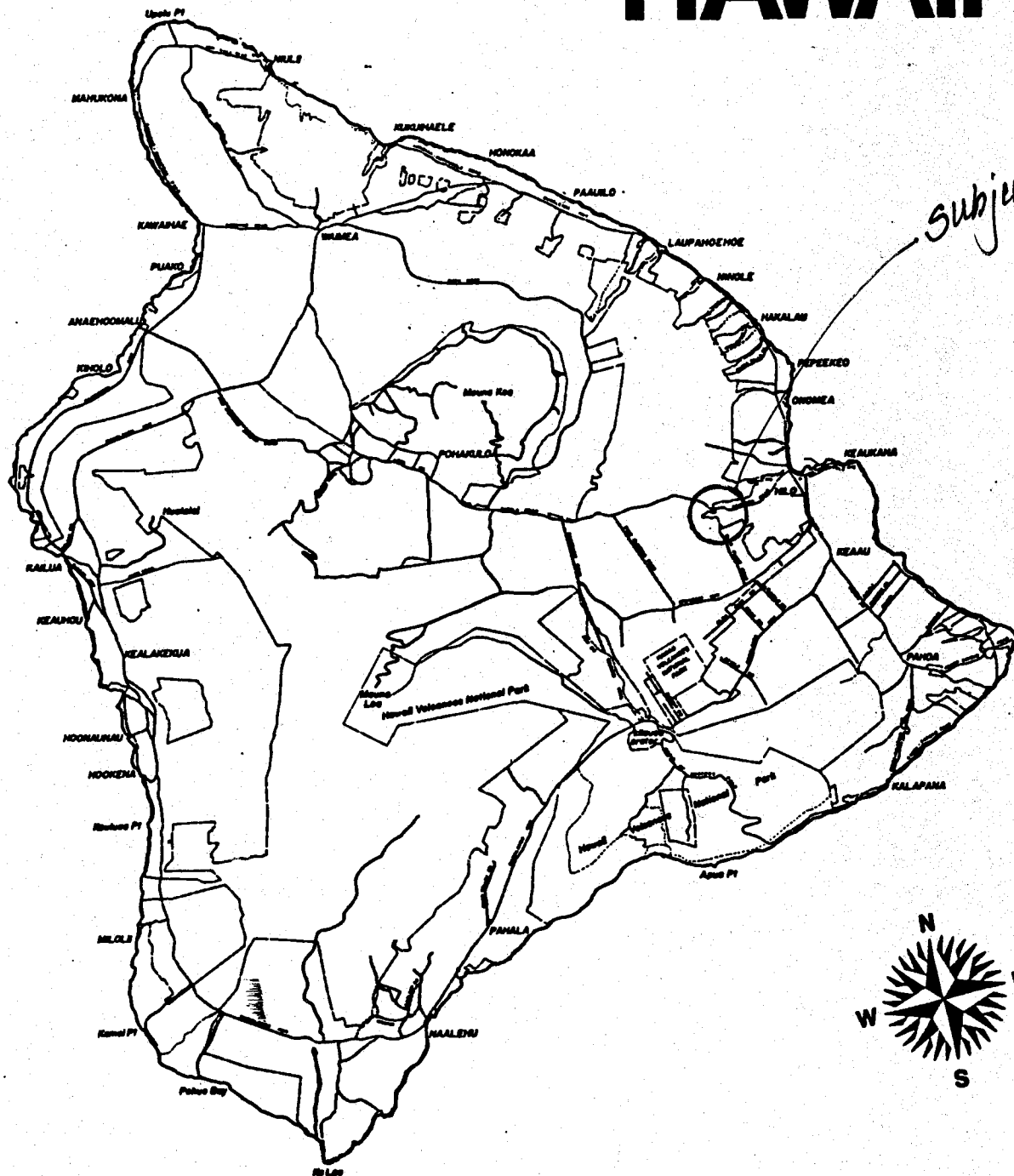


EXHIBIT |



Figure 3. Aerial photograph of project area to show vegetation.

EXHIBIT 2

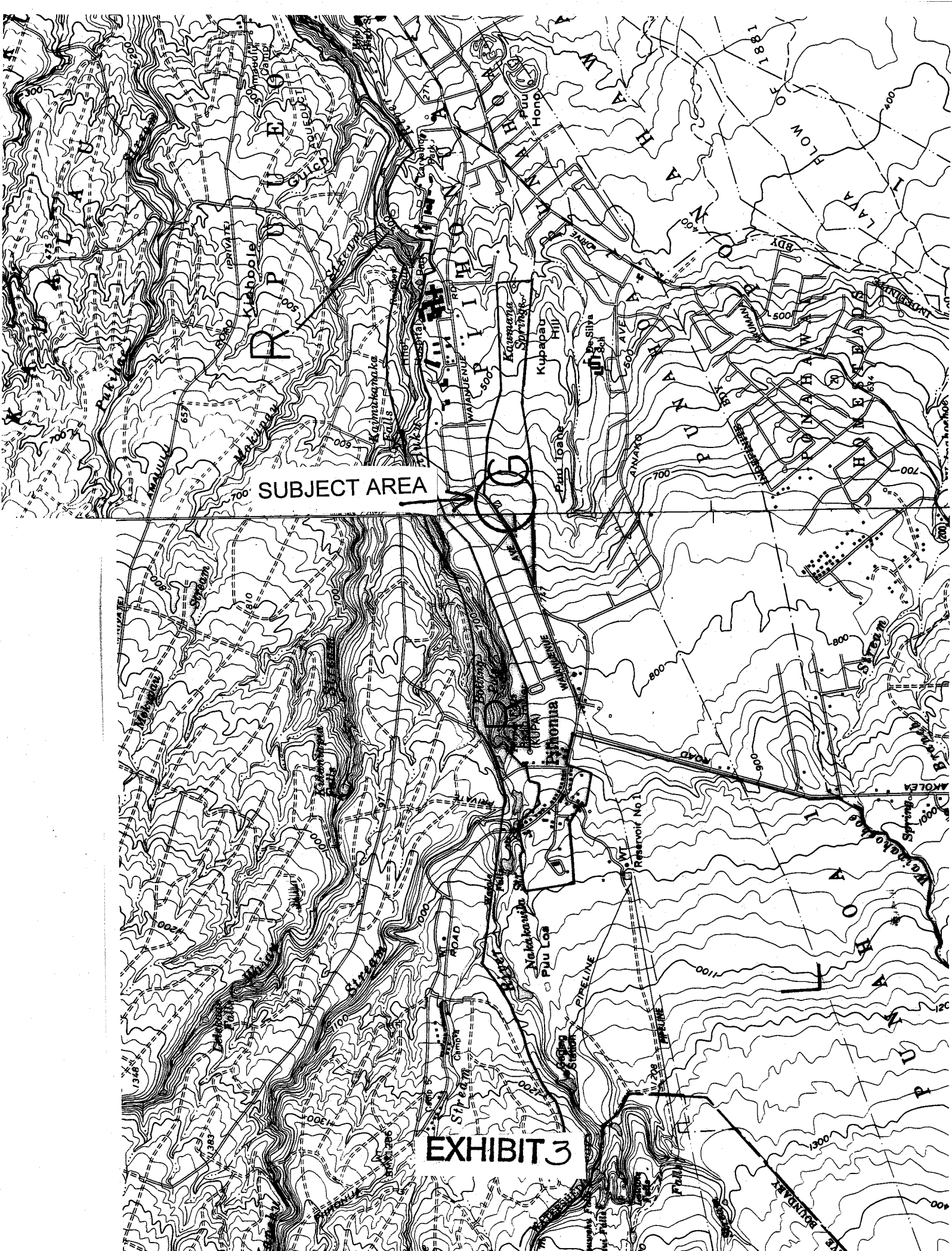
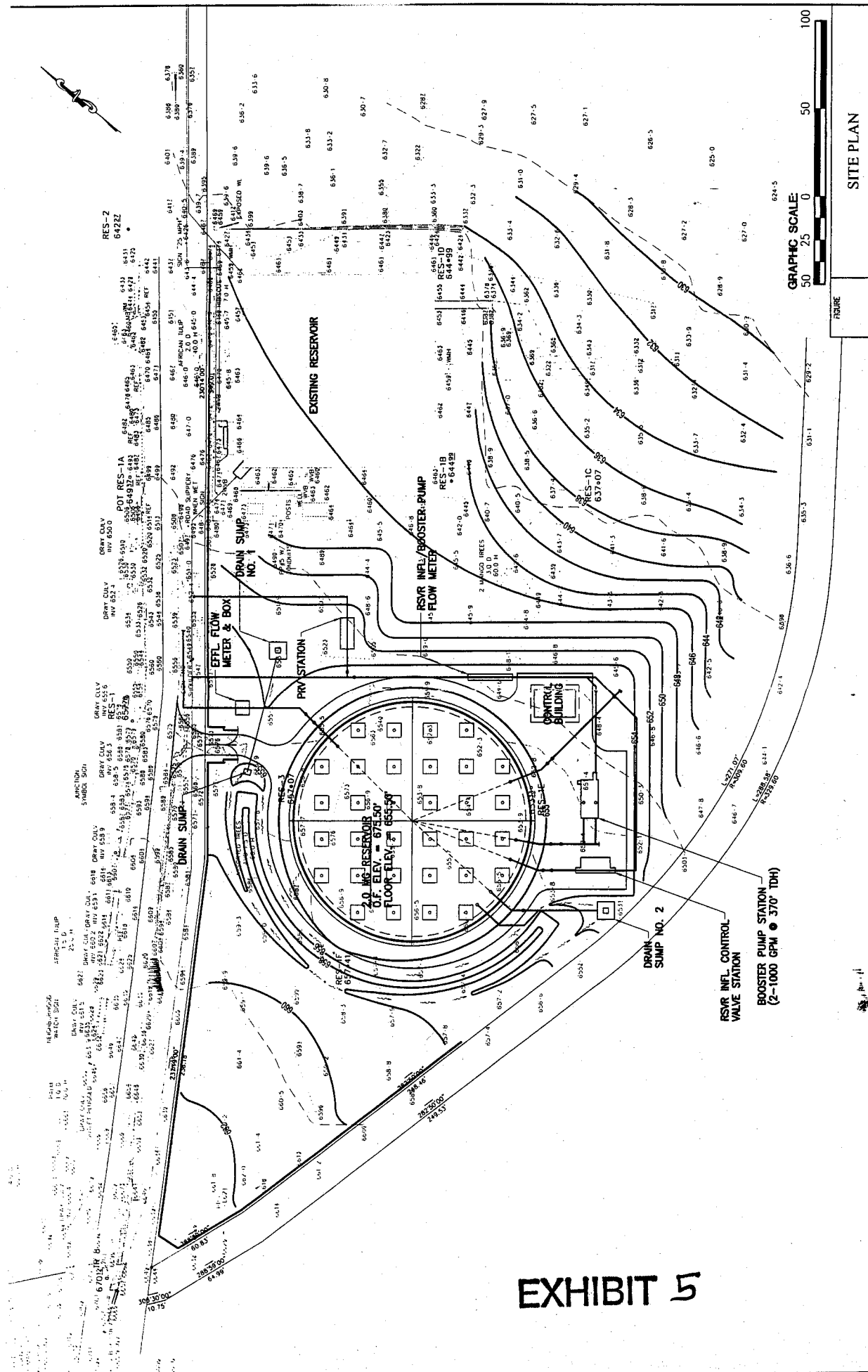
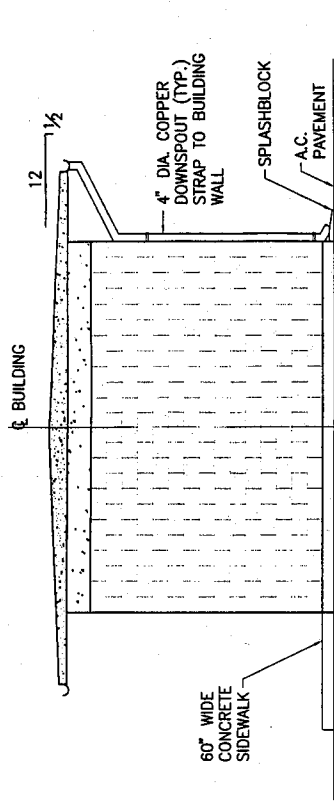




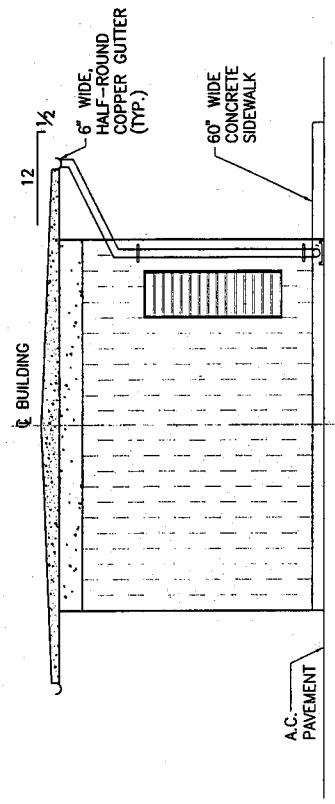
EXHIBIT 4



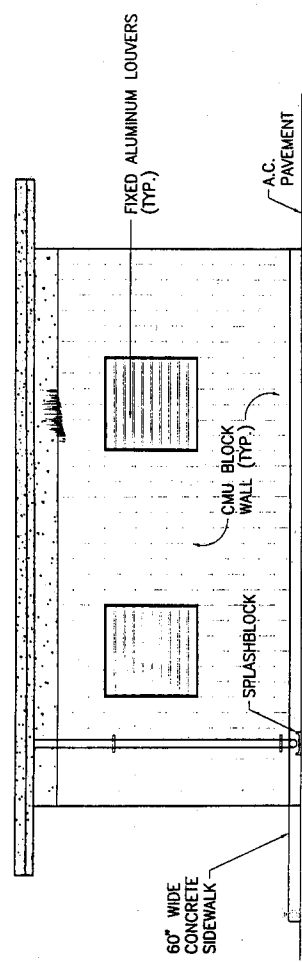




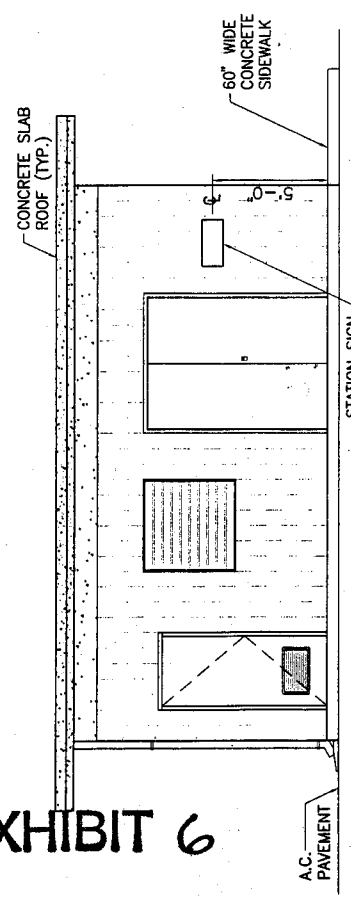
SOUTH ELEVATION



NORTH ELEVATION



EAST ELEVATION



WEST ELEVATION

EXTERIOR ELEVATIONS
SCALE: 3/16" = 1'-0"



CONTROL BUILDING
EXTERIOR ELEVATION

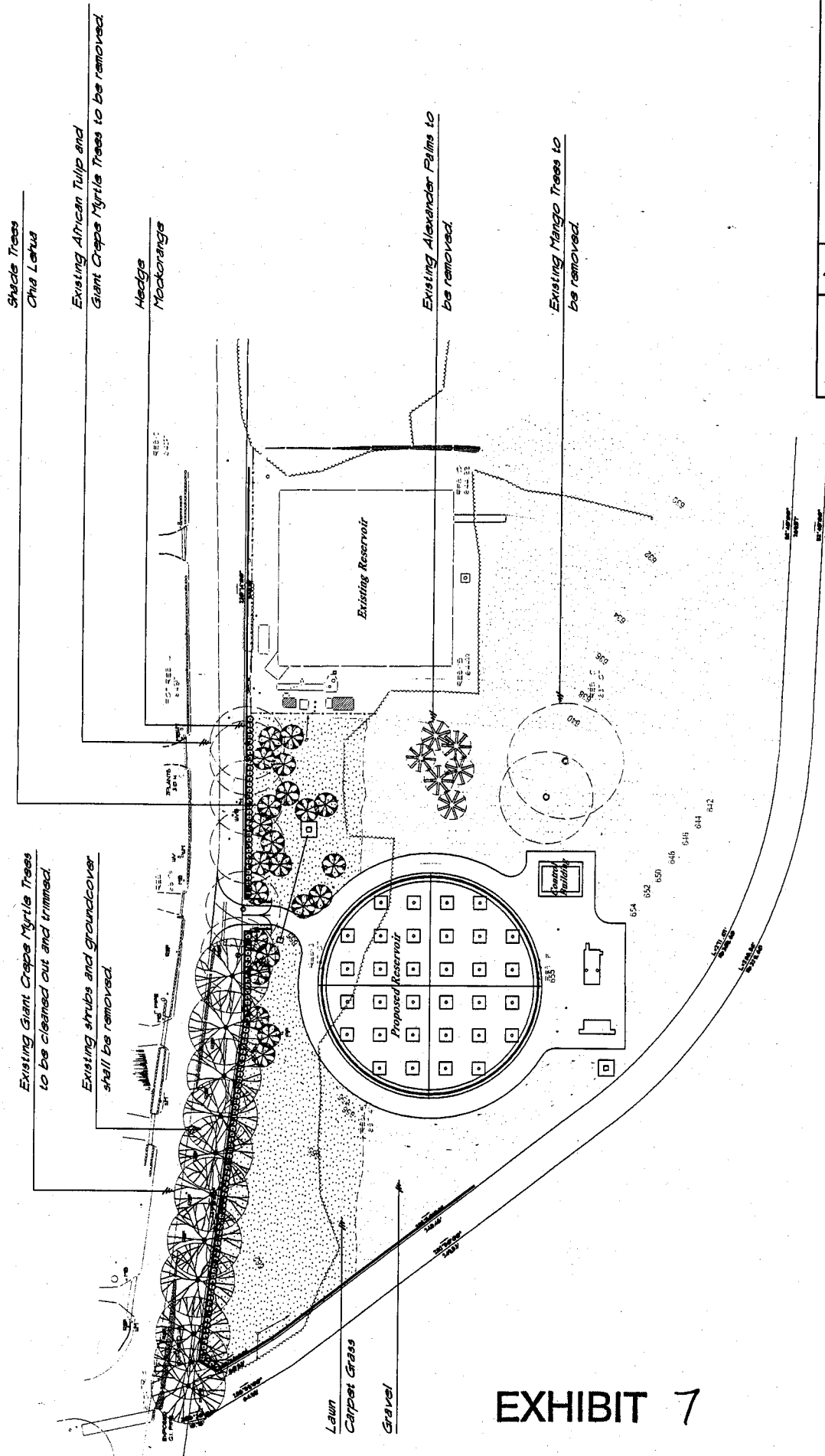


EXHIBIT 7

	DEPARTMENT OF WATER SUPPLY COUNTY OF HAWAII	
	PROJECT: CONSTRUCTION OF THE KAHALA RESERVOIR NO. 2 REPLACEMENT	SHEET NO. 11 OF SHEETS
LANDSCAPE PLAN		JOB NO. 2002-802